**WHAT IS CLAIMED IS:**

1.     A method for processing the data of a process, said method comprising:

       (a) collecting a time series data of a time varying parameter of said process;

       (b) processing said time series data according to a data structure that defines said time varying parameter and an activity having an interval that frames said time varying parameter; and

       (c) storing said processed time series data in a memory.

2.     The method of claim 1, wherein said data structure includes an activity structure that comprises an identity and a plurality of activity attributes.

3.     The method of claim 2, wherein said activity attributes are selected from the group consisting of: start time, end time, time varying parameter and item used in said process.

4.     The method of claim 3, wherein said activity attributes have an attribute value.

5.     The method of claim 3, wherein said item is an equipment, and wherein said time series data is linked to a device of said equipment.

6.     Apparatus for processing the data of a process, said apparatus comprising:

means for collecting a time series data of a time varying parameter of said process;

means for processing said time series data according to a data structure that defines said time varying parameter and an activity having an interval that frames said time varying parameter; and

means for storing said processed time series data.

7. The apparatus of claim 6, wherein said data structure includes an activity structure that comprises an identity and a plurality of activity attributes.

8. The apparatus of claim 7, wherein said activity attributes are selected from the group consisting of: start time, end time, time varying parameter and item used in said process.

9. The apparatus of claim 8, wherein said activity attributes have an attribute value.

10. The apparatus of claim 8, wherein said item is an equipment, and wherein said time series data is linked to a device of said equipment.

11. A method for retrieving time series data of a process that is stored in a memory, said method comprising:

(a) identifying an activity of said process;

(b) identifying a time varying parameter that is framed by an interval of said activity; and

(c) processing said activity and said time varying parameter to access said memory to retrieve said time series data.

12. The method of claim 11, wherein said data structure includes an activity structure that comprises an identity and a plurality of activity attributes.

13. The method of claim 12, wherein said activity attributes are selected from the group consisting of: start time, end time, time varying parameter and item used in said process.

14. The method of claim 13, wherein said activity attributes have an attribute value.

15. The method of claim 14, wherein said item is an equipment, and wherein said time series data is linked to a device of said equipment.

16. The method of claim 11, wherein step (b) identifies said time varying parameter with a reference selected from the group consisting of: time based reference with respect to said interval, direct reference to said activity and indirect reference to said activity.

17. The method of claim 16, wherein said time based reference is with respect to a parameter that is independent of said process.

18. The method of claim 16, wherein said direct reference directly refers to said activity.

19. The method of claim 16, wherein said indirect reference includes a reference to an equipment used by said process during said activity.

20.     An apparatus for retrieving time series data of a process that is stored in a memory, said apparatus comprising:

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        first means for identifying an activity of said process;

        second means for identifying a time varying parameter that is framed by an interval of said activity; and

        means for processing said activity and said time varying parameter to
10      access said memory to retrieve said time series data.

21.     The apparatus of claim 20, wherein said data structure includes an activity structure that comprises an identity and a plurality of activity attributes.

15      22.     The apparatus of claim 21, wherein said activity attributes are selected from the group consisting of: start time, end time, time varying parameter and item used in said process.

23.     The apparatus of claim 22, wherein said activity attributes have an
20      attribute value.

24.     The apparatus of claim 23, wherein said item is an equipment, and wherein said time series data is linked to a device of said equipment.

25      25.     The apparatus of claim 20, wherein said means for identifying an time varying parameter identifies said time varying parameter with a reference selected from the group consisting of: time based reference with respect to said interval, direct reference to said activity and indirect reference to said activity.

26. The apparatus of claim 25, wherein said time based reference is with respect to a parameter that is independent of said process.

27. The apparatus of claim 25, wherein said direct reference directly refers to said activity.

28. The apparatus of claim 25, wherein said indirect reference includes a reference to an equipment used by said process during said activity.

29. A memory media for controlling a computer to retrieve time series data of a process that is stored in a memory, said memory media comprising:

first means for controlling said computer to perform a first operation to identify an activity of said process;

second means for controlling said computer to perform a second operation to identify a time varying parameter that is framed by an interval of said activity; and

third means for controlling said computer to perform a third operation to process said activity and said time varying parameter to access said memory to retrieve said time series data.

30. A memory media for controlling a computer to process the data of a process, said method comprising:

first means for controlling said computer to perform a first operation to collect a time series data of a time varying parameter of said process;

second means for controlling said computer to perform a second operation to process said time series data according to a data structure that defines said time varying parameter and an activity having an interval that frames said time series data; and

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third means for controlling said computer to perform a third operation to store said processed time series data in a memory.

31. A method for processing time series data of a time varying parameter of a

10    process, said method comprising:

(a) processing said time series data with an activity that has an interval that frames said time series data; and

15    (b) processing said activity and time varying parameter to access a memory and retrieve said time series data.

32. An apparatus for processing time series data a time varying parameter of a process, said apparatus comprising:

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first processing means for processing said time series data with an activity that has an interval that frames said time series data; and

second processing means for processing said activity and said time varying parameter to access a memory and retrieve said time series data.

25    varying parameter to access a memory and retrieve said time series data.

33. A memory media for controlling a computer to process time series data of a time varying parameter of a process, said memory media comprising:

first means for controlling said computer to perform a first operation to process said time series data with an activity that has an interval that frames said time series data; and

5 second means for controlling said computer to perform a second operation to process said activity and said time varying parameter to access said memory and retrieve said time series data.